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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/981,888	10/19/2001	Hiroyuki Sakurai	P 284026	7320

909 7590 02/05/2004

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EXAMINER
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ROY, SIKHA

ART UNIT	PAPER NUMBER
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2879

DATE MAILED: 02/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application N .

09/981,888

Applicant(s)

SAKURAI ET AL.

Examiner

Sikha Roy

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 November 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 9-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 9-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 1103.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

The Amendment, filed on November 6, 2003 has been entered and is acknowledged by the Examiner.

Cancellation of claims 1-8 has been entered.

### ***Specification***

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 9-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,246,179 to Yamada and further in view of U.S. Patent 6,380,672 to Yudasaka.

Regarding claim 9 Yamada discloses (column 5 lines 1-5 column 6 31-41 Fig. 4B) a display pixel comprising emissive element layer 66 held between light-transmitting electrode (transparent anode 61) and light-reflecting electrode (cathode 67) (column 7 lines 12, 13, 35-40), pixel wiring members for pixels formed of the light-emitting organic EL element. Yamada discloses the self light-emitting layer is disposed within an opening

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formed in the insulating member 19 to expose part of the light-transmitting electrode and the insulating member 19 covering the pixel wiring member and the first electrode 61 is composed of layers of insulating SiO<sub>2</sub>, SiN films and a planarizing insulating film made of photosensitive resin formed on top of SiO<sub>2</sub>, SiN films

Claim 9 differs from Yamada in that Yamada does not exemplify the hydrophilic portion forming a shoulder protruding to a position closer to the center of the opening than the water repellent portion.

Yudasaka in analogous art of organic display device discloses (Fig. 6C Fourth embodiment, column 15 lines 22-40 column 16 lines 17-35) the insulating member (bank) includes a lower insulating layer 61 formed of silicon dioxide or silicon nitride which are known in the art to be hydrophilic and upper insulating layer 62 formed of resist or polyimide having water repellent properties (column 12 lines 26-28) the lower layer 61 having a protruding portion closer to the center than the water repellent upper layer 62. Yudasaka further discloses that in this double-layered configuration the organic light-emission element 43 (pre-cursor of the organic film containing hydrophilic solution) can be formed only in pre-determined region around the lower insulating layer 61 and does not come in contact with upper organic insulating layer 62 and thus is not deteriorated and there is no decrease in luminescent efficiency and reliability of the device.

Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to modify the insulating film of Yamada by double-layered insulating member as suggested by Yudasaka having hydrophilic portion (61) protruding closer to

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the center than the water-repellent portion (62) for forming the organic light-emission element only in pre-determined region around the lower insulating layer and thus preventing decrease in luminescent efficiency and reliability of the device.

Regarding claim 10 Yamada discloses (Fig. 7 column 8 lines 60-63) the pixel member including source electrode 18 formed together with the light transmitting electrode (anode 61) in a plane over a dielectric transparent substrate 10 made of glass. Yamada further discloses (column 5 lines 47-52) that the pixel wiring comprising gate electrode, signal lines, drive power lines are composed of light reflecting metal aluminum.

Regarding the limitation comprising the pixel wiring member reflecting light emitted laterally from the light emitting layer, it is elementary that mere recitation of a newly discovered function or property, inherently possessed by things in the prior art, does not cause a claim drawn to distinguish over the prior art. Additionally, where the Patent Office has reason to believe that a functional limitation asserted to be critical for establishing novelty in the claimed subject matter may, in fact, be an inherent characteristic of the prior art, it possesses the authority to require the applicant to prove that the subject matter shown to be in the prior art does not possess the characteristic relied on. Thus, the functional limitation of pixel wiring member reflecting light emitted laterally from the light emitting layer is taught by Yamada under the principles of functional inherency.

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Regarding claim 11 Yamada and Yudasaka disclose that the insulating member (17 in Fig. 7 of Yamada) includes an insulating film covering the pixel wiring member and light transmitting electrode. The insulating member comprises water repellent insulating film covering a hydrophilic insulating film.

Referring to claim 12 Yamada discloses the insulating film may be composed of lamination of layers of insulating SiN film which is known in the art to be used as protective layer and hydrophilic insulating SiO<sub>2</sub> films.

Regarding claim 13 Yamada discloses (Fig. 7) the display pixel having opening tapered towards the light-transmitting electrode (61).

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sikha Roy whose telephone number is (571) 272-2468. The examiner can normally be reached on Monday-Friday 8:00 a.m. – 4:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar D. Patel can be reached on (571) 272-2457. The fax phone number for the organization is (703) 308-7382.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Sikha Roy  
Patent Examiner  
Art Unit 2879

  
NIMESHKUMAR D. PATEL  
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